DIV. 13.

A.D. 1906. April 26, N° 9753.

BEEBEE'S Complete Specification.

(1 SHEET)

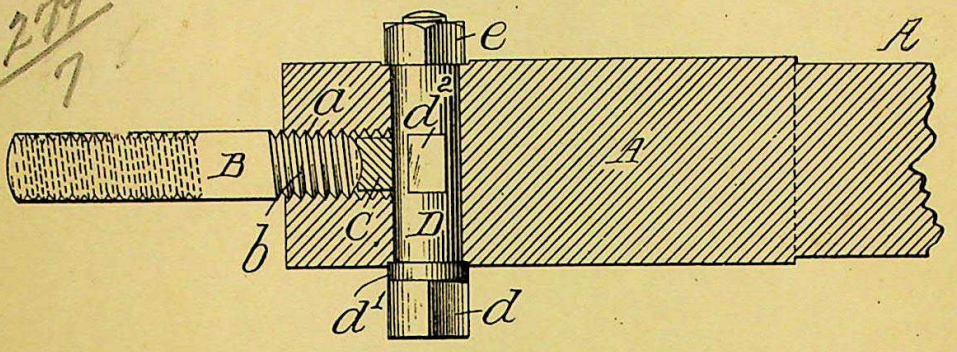

Fig. 1.

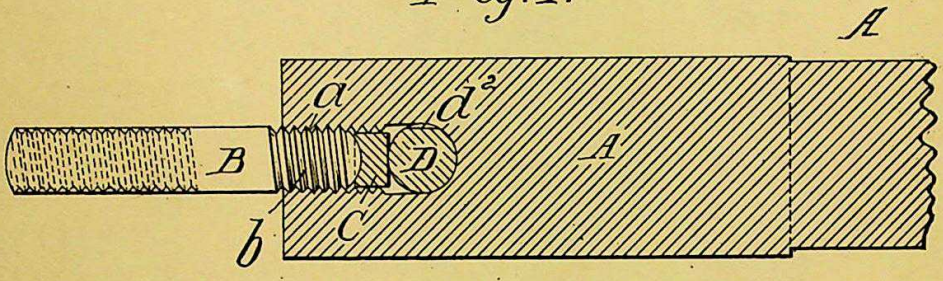

Fig. 2.

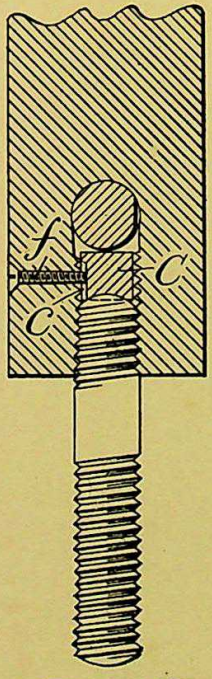

Fig. 3.

Malby & Sons, Photo-Litho.

N° 9753 A.D. 1906

DUPLICATE

Date of Application, 26th Apr., 1906—Accepted, 31st Jan., 1907

COMPLETE SPECIFICATION.

Novel or Improved Devices for use in Threading Screw Studs and in Screwing such Studs Permanently into Place.

I, ALFRED BEEBEE, of Wood Street Works, Fallings Heath, Wednesbury in the County of Stafford, Manufacturer of Engineers' Studs, do hereby declare the nature of this invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention has for its main object a novel or improved device for the purpose of holding a screwed end of a stud while a thread is formed on the other end, and subsequently allowing the stud to be readily removed therefrom which will be simple in construction and thoroughly efficient, and comprises also a device of the same or similar construction adapted for use in screwing studs permanently into place.

Broadly describing a device constructed according to this invention, for either of the above purposes, it comprises, as is the case with some other devices for such purposes a holder into which a threaded end of a stud may be screwed, and a separately-formed abutment which forms the inner end of the hole and against which the stud is screwed, but the abutment is supported against the thrust of the stud, by a pin which is capable of turning in a cylindrical hole bored transversely through the holder, and has a flat or gap formed at the middle thereof at one side against or into which the abutment may move when the pin is turned to bring such flat or gap opposite to the abutment. This pin is very simple to make, and is easily put into place. When a stud is to be screwed up into the holder, the pin is turned into position to ensure that the abutment will be pressed back against the cylindrical surface thereof as the stud tightens up against the abutment; but when it is desired to remove a stud from the holder, the pin is turned to bring its flap or gap opposite to the abutment, and the abutment is thereby slackened and the stud unlocked within the screwed hole of the holder, after which it may be easily unscrewed therefrom. The holder may be carried to revolve in a lathe or screwing machine while a thread is run on the outer end of the stud, or may be carried in a machine or brace or the like or be provided with a suitable handle or handles and utilised in screwing a stud permanently into place, such as into a flange of a cylinder.

Convenient practical applications of the invention, for the two purposes to which it is applicable, are illustrated, by way of example, by the drawings herewith, of which:—

Figure 1 is a longitudinal section through the holder, shewing a stud screwed up therein on the outer end of which a screw thread (indicated by broken lines) is to be run.

Figure 2 is a corresponding view to Figure 1, taken in a plane at right angles to the plane of the section shewn by Figure 1; and

Figure 3 is a corresponding section to that shewn by Figure 2, of the device adapted for use in screwing a stud permanently into place.

Referring first to the device shewn by Figures 1 and 2, A is the stock of the holder formed in one piece of metal as shewn, and *a* a screwed hole formed in from the outer end thereof to receive the screwed end *b* of a stud B. Slidingly fitted within the screwed hole *a* is a plug C, hollowed at its forward face to receive the rounded end of the stud and flat across its rear face. D is a round

pin passing through and being a turning fit within a hole bored transversely through the stock A. This pin is formed with a square, or correspondingly-shaped, head *d*, adapted to be readily turned by a spanner or key, and is kept in proper position endways by a collar d^1 which beds against a flat face formed at one side of the stock, and a nut *e* which is screwed on the other end of the pin tightly against a shoulder thereof and beds against a flat face formed at the other side of the stock. The plug C is supported by the cylindrical surface of the pin D against the thrust of the stud as the stud is screwed up tightly within the holder; but the pin is formed with a flat d^2, which is turned over to form an opposing face to the back of the plug, and allow the plug to yield back and unlock the stud, when it is desired to remove the stud from the holder.

The hinder end of the stock A is shewn as broken away for convenience of illustration. Such end is shaped in any desired manner for connection with the part by which the holder is to be carried.

The device shewn by Figure 3 differs from that shewn by Figures 1 and 2, simply in that the plug C is somewhat deeper and is formed with a groove *c* in one side which extends not quite to the upper or hinder end thereof, into which groove the end of a pin *f* is passed to prevent the plug falling out when the holder is withdrawn vertically from off a stud.

The device shewn by Figures 1 and 2 may, if desired, be constructed similarly to that shewn by Figure 3, to prevent the plug falling out should the device be accidently turned downwards when no stud is screwed in the hole; and, of course, the groove and pin shewn by Figure 3 are not necessary if a device for permanently fixing studs in place is to be used only horizontally.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim, is:—

1. A device for use in threading a screw stud, or for screwing such stud permanently into place, which comprises, in combination, a stock formed in one piece of metal, a hole screwed up the axis of the stock to receive the stud, and a transverse pin capable of turning within the stock, and adapted when turned into one portion to support and lock the stud when the stud is screwed up within the stock and when turned into a certain other position to release the stud and permit of its being easily unscrewed from the stock.

2. A device for use for either purpose stated in Claim 1, which comprises, a holder to receive the stud and a transverse cylindrical pin formed with a flat or gap which may be turned into position opposite the stud, said pin being adapted to be turned to bring a cylindrical portion of its surface towards the stud to support and lock it when screwed up, and to be turned to bring its flat or gap towards such stud to release the stud and permit of its being readily unscrewed from the holder.

3. In a device characterised as set forth in Claim 1 or in Claim 2 a movable abutment within the hole into which the stud is screwed, substantially as described.

4. Devices for use in threading screw-studs or for screwing such studs permanently into place, substantially as described with reference to the drawings herewith.

Dated this 25th day of April 1906.

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